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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER SZEWCZYK, CYNTHIA				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
09/01/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/550,692

Applicant(s)

OLLFISCH ET AL.

Examiner

CYNTHIA SZEWCZYK

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 16-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHIEL et al. (DE 101 05 200 A1).

SCHIEL teaches a method and device for bending glass panes wherein the method comprises the steps of:

- i. laying glass sheets on a concave bending frame (3 in figures) to be prebent by gravity (para. 4, lines 2-3);
- ii. transferring the prebent glass sheets to a transfer former (5 in figures) with a concave forming surface, the outside dimensions of the transfer former (5) being smaller than those of an area enclosed by the concave bending frame (3), by moving the transfer former in a generally vertical relative movement through the concave bending frame (see figure 2);
- iii. positioning the transfer former (5 in figures) to vertically overlie a final bending former (7 in figures) in a form of a frame with a concave forming surface, the outside dimensions of the transfer former (5) being smaller than those of the area enclosed by the concave final bending former (see figure 5);
- iv. moving the transfer former (5) in a generally vertical relative movement through the final bending former (7) in a form of a frame, the transferred glass sheets being laid on the final bending former (see figure 5);

- v. bending the transferred glass sheets into a final shape while being supported on the final bending former, wherein it would have been obvious to one of ordinary skill in the art that the softened hot glass sheet (para. 43, line 7) placed on the final bending frame would continue to sag (i.e. bend) until cooled and solidified; and
- vi. transferring at an end of the bending step (para. 21, lines 2-3), the bent glass sheets in their final shape from the final bending former to a transport system wherein SCHIEL discloses that the forming frames may be used as transport means (para. 43, lines 4-5), and cooling the bent glass sheets (para. 43, lines 7-10).

Regarding claim 17, SCHIEL discloses that a pressure difference is applied across the transfer former (para. 41, lines 2-4).

Regarding claim 18, it would have been obvious to one of ordinary skill in the art that the softened hot glass sheet (para. 43, line 7) placed on the final bending frame would continue to sag until cooled.

Regarding claim 19, SCHIEL discloses that there exists an upper former complementary in shape (4 in figures) that is used to press bend the glass (para. 39, lines 4-5).

Regarding claim 20, see the discussion of claim 17 above.

Regarding claim 21, it would have been obvious that the method and apparatus would have been capable of bending single panes of glass since molds are commonly used to shape single panes of glass.

Regarding claim 22, SCHIEL is silent as to the cooling method, but any well known method of cooling could be applied. One such method of cooling that is well known in the art is quenching, in which the glass is cooled rapidly and thus toughened. It would have been obvious to quench the glass of SCHIEL because SCHIEL discloses that the glass is typically used for windshields (para 1, lines 4-5) which require toughened glass in order to protect the driver during accidents.

Regarding claim 23, SCHIEL discloses that the method and apparatus is used for bending pairs of glass.

Regarding claim 24, SCHIEL discloses that the shaped glass is cooled when the shaping is complete (para. 43, lines 9-10) as in instant claim 24.

Regarding claim 25, see the discussion of claim 16. SCHIEL discloses that the molds are able to move height wise by a drive (para. 34, line 3). SCHIEL discloses that the glass is brought to the softening temperature in a furnace (para. 32, line 3).

Regarding claim 26, SCHIEL discloses that the transfer former produces a depression (para. 38, lines 7-9).

Regarding claim 27, SCHIEL discloses that the transfer former is a solid concave surface (para. 15, line 3).

Regarding claim 28, see the discussion of 19 above.

Regarding claim 29, SCHIEL discloses that the upper former helps produce a pressure differential by keeping the top of the glass sheets at atmospheric pressure while a depression is applied to the transfer former (para. 40, lines 5-7).

Regarding claim 30, SCHIEL discloses that the upper former is a convex surface (para. 33, line 1). Figures 1-6 of SCHIEL show that the upper former appears to have a solid surface.

Response to Arguments

3. Applicant's arguments filed June 3, 2009 have been fully considered but they are not persuasive. Applicant argues on pages 6 and 7 that SCHIEL does not teach a bending former; however it would have been obvious to one of ordinary skill in the art that a softened hot glass sheet placed on the final bending frame would continue to sag until cooled and solidified. Therefore, concave frame 7 can be considered a bending frame, because the softened glass would continue bending until cooled.

4. Applicant argues on page 8 that claims 21 and 22 recite that the process is intended for individual glass panes, whereas SCHIEL describes bending glass panes in pairs. However, claims 21 and 22 were rejected under 103, wherein it would have been clearly obvious to one of ordinary skill in the art that a process that teaches bending pairs of glass panes could have been easily adapted to bend individual glass panes. In fact, no adjustment to the process of SCHIEL would be necessary in order to process individual glass panes.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CYNTHIA SZEWCZYK whose telephone number is (571)270-5130. The examiner can normally be reached on Monday through Thursday 7:30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CS

/Eric Hug/
Primary Examiner, Art Unit 1791